THE INDIANA

FARMER & GARDENER.

Vol. I. **INDIANAPOLIS, APRIL 19, 1845.** **No. 7.**

PUBLISHED BY

S. V. B. NOEL & CO.

TERMS.—The FARMER AND GARDENER is published *semi-monthly*, each number containing 16 royal octavo pages, at *One Dollar* per annum per copy; *Seventy-five Cents* per copy for Four and less than Ten copies; and *Fifty Cents* per copy for Ten or more copies to the same Post Office. All subscriptions IN ADVANCE.

INDIANA FARMER & GARDENER.

Indianapolis, Saturday, April 19, 1845.

Catalogues -- A Request.

We wish the catalogues of the following establishments, and will thank the proprietors for copies:

Buist's Catalogue of Green House, and Garden Shrubs, &c. *Breck's* Seed Catalogue. *Thornburn's* do. *Risley's* do. *Hovey's* Catalogues, except the *nursery* list, which we already have. *Kenrick's* Nursery Catalogue. *Feast's* Catalogue of Flowers, Shrubs, &c. *Downing's* Nursery Catalogue.

Dahlias.

We have frequent calls for this plant, and we see preparations in progress for sprouting, dividing, and planting it out. A *few* may be started now for early flowering, but the main beds of Dahlias ought not to be formed until a much later period — say the first of June. When Dahlias are planted out early, the severe heats and drought of midsummer are apt to shrink the bloom and injure the whole plant. We shall give ample directions in due time.

It is sometimes worth a man's while to *spell* correctly; we recently received a letter in which, among other rare things, the writer requested us to send him "an assortment of *Dalilahs*, of all colors" — a very perilous spelling of a very innocent errand.

Preparation of Seed for Sowing.

Many persons suppose that when seeds have been selected, nothing is necessary but to put them into the ground just as they are. A careful preparation of seed, both for field or garden use, will add much to the success of a planting.

1. *Assorting Seeds.*— In every lot of seed there are many imperfect ones; some are insectiferous, some are unripe, some are the extreme terminal seeds, small and weak, some are very often a little mouldy. In some way all defective seeds should be removed.

Then it should be remembered, that the soundest and largest seeds will produce plants of a corresponding vigor, and that by planting only the healthiest, the variety is kept pure—or even improved.

For garden use hand picking will suffice. We pour our corn on a table, and select only the kernels which are plump and large, rejecting any which shew an intermixture of other varieties. Beet seed requires careful winnowing, nearly one fourth, as they are usually sold, being unfit for planting. Peas are more uniform in size and quality, and require but little selection. Melons, Squashes, and Cucumbers should be culled, or better yet be put into water; only those which sink promptly should be used, the swiming and

floating ones being light and trashy. Beans are apt to be imperfect. We have usually found occasion to reject full one third of every quart; for, seedsmen are apt to put in every seed that grows, whether they will ever grow again or not. There is no dishonesty certainly in this; but if one would habitually screen or select, and put up only the very choicest he would ultimately get a higher price, and secure for his seed a universal demand.

2. *Soaking Seeds.*—Some seeds will not germinate for a long period, unless they are artificially brought forward. Locust seeds are *scalded* before planting. Peas are scalded to kill the bug, when thus inhabited.—The cypress vine seed require soaking to induce a quick germination. Celery seed is very sluggish unless soaked.

Seeds are often steeped in *prepared* liquids to force their growth. Old seeds, whose powers of germination are much diminished are made to vegetate by being put into a weak solution of oxalic acid. Wheat is *pickled* in salt brine, then rolled in lime, as a preventive of *smut*.

Corn is protected from worms by copperas water; and peas are put into train oil to guard them from moles and mice. Tanner's oil, and a solution of saltpetre are often used; the first for turnep seed to protect them from a destructive insect; and the latter for all seeds as a stimulant to their growth and to guard against worms and bugs.

Some excitement was made in Scotland, not long ago, by the great effects alleged to have been produced by so preparing seeds that they would contain in or on themselves all those fertilizing qualities usually looked for in the soil. It is possible by employing chemical mixtures, or coatings, to make the seed germinate with great vigor, and to establish itself strongly; but we do not suppose any process can be made to reach beyond this. No mere soaking or coating can extend its influence through the whole growth of the crop.

We are trying the effect of soaking seeds in *guano* water, prepared at the rate of two pounds *guano* to a gallon of water, according to the direction of Dr. Gardener of New York city. We soak small seeds twelve, and large ones twenty four hours, and anticipate a decidedly beneficial effect. We are indebted to the kindness of Mr. Ernst, of Spring garden, Cincinnati, for this valuable fertilizer, with which we are making some other experiments.

When seeds are soaked they anticipate the weeds in coming up, especially seeds planted in May and June, and this is a very important object, as crops are, often, almost smothered with weeds before they are large enough to be weeded.

Sowing Flower Seeds--Transplanting.

Many flower seeds require no more skill in planting than do peas or beans, for they are as large and as easily germinated. But very many are small, and some extremely small, and if planted too deeply, they will not shoot, or will shoot very feebly.

Select a free-working and rich piece of ground—a sandy loam is best, and a stiff clay the worst—let it be spaded deeply, incorporating very thoroughly-rotted manure, i. e. manure full two year's old and which will crumble in the hand as fine as sand. With a fine-toothed rake reduce every lump and bring the surface to the finest state of pulverization. If the seed is very small, it had better be mixed with a little sand, or dry soil, to increase the bulk. The sowing will be easier and more equal. Scatter the seed upon the bed; then with the hands or a fine garden seive, sift fresh and mellow earth upon it from a quarter to half an inch in depth. To bring the earth compactly about the seed, spat the bed with moderate strokes with the back of a spade. If the weather is very dry, water the bed at evening with a watering pot—to pour it from a pail or cup would wash up the surface. Keep the plants from weeds, and when they are one or two inches high, they may be transplanted to the places where they are to stand. Balsams, Larkspurs, Poppies, and, indeed, most flowers do better by being transplanted. The operation checks the luxuriance of the plant, and increases its tendency to flower.

Sometimes seeds are planted where they are to remain; the treatment is precisely

the same as before, except they are *thinned out* instead of transplanted. No mistake is more frequent, among inexperienced gardeners, than that of suffering too many plants to stand together. One is reluctant to pull up fine thriving plants; or he does not reflect that what may seem room enough while the plant is young, will be very scanty when it is grown.

There is much taste to be displayed in arranging flowers in a garden so that proper colors shall be contrasted. It is important that proper colors should be matched in a garden, as on a dress. From Hovey's Horticultural Magazine we extract an excellent article on grouping and arranging plants:

Most gardens have their charms, but the general evil is, that they are beautiful only at a particular season or seasons; while, during the rest of the summer, they have nothing to attract the observation, and even during their beauty, there is a stiffness of arrangement any thing but pleasing. It is laid down in general as a rule, and founded on the recognition of a principle, which is, or ought always to be followed, viz., that uniformity and contrast most invariably accompany each other — in the arrangement of the plants, uniformity as to size of plants, and contrast, as to color of flower and shape of leaves. No annual flower should be sown, nor any plant permanently placed, without first ascertaining their *height*, *color*, and *season of flowering*. The greatest difference of taste prevails on the subject of disposing and intermingling the various plants which are to occupy the flower border. As the whole beauty depends on the tasteful disposition of the plants in regard to color, and a nicety in arranging the different groups or beds, so that, when viewed from the principal entrance, or a distant point, they will present one glow of color, and in such a manner, that one group shall not intercept the beauties of another.

In planting out for general effect, there are two different methods, each of which has its admirers One, is to plant flowers of different colors in the same bed, which is certainly desirable in some cases, where the size of the bed, or its position in the garden, may render such a mode necessary. Some plants show off their beauties best when arranged in this manner; for example, a bed of mignonette may be sweet, but from a distance is tame and dull: plant clarkias, scarlet verbena, or purple petunia along with it, and it becomes elegant as well as sweet: some must be planted singly to be viewed with advantage. It must be undoubtedly acknowledged, that this is the best system where the flower borders have a walk only on one side, or wanted as a boundary between certain parts of the garden. It is almost needless to state that the larger plants should be placed behind the smaller ones, as every person of the least thought would naturally do this without advice. When different plants are variously disposed in neat and regulated order in such borders, they form, like the flowers in a tastefully arranged bouquet, a most beautiful appearance.

The second method, and the one most worthy of general imitation, is to plant only one kind of flower in each bed, so as to produce masses of color, which will harmonize with the masses in the other beds. It is almost unnecessary to say, that, where the flower garden is laid out symmetrically, and is of any extent, that this system is by far the best for striking and general effect. It is also the most desirable method for planting the isolated clumps which decorate ornamental lawns. All flower gardens, to have a good effect, are laid out symmetrically, that is to say, the beds are distributed, so that, whether simply divided into squares, ovals, circles, parallelograms, or figures of various shape, regularly formed, one part corresponds with every other part, and each part is not separable from the other without injuring the effect of the whole. Great care must be taken not to plant the beds on one side with plants of a different species or color from the beds which occupy the corresponding side of the same figure; for instance, suppose the beds on one side of the centre to be planted with scarlet verbena, blue verbena, purple petunia, or yellow eschscholtzia; then the corresponding beds on the other side of the centre ought to be planted with the same plants, in order to preserve the symmetry of arrangement.

The prevailing colors of flowers are, white, pink, yellow, orange, scarlet, red, blue, purple, and all their various shades and mixtures, and those which ought to be brought together, and which contrast the best, are, white with rose-colored or pink; dark blue with yellow; light blue with orange; scarlet with white, yellow or blue; orange with purple; yellow with lilac or violet. The principal thing to be avoided is placing yellow next orange; blue next violet; rose-colored next scarlet, or orange and violet next rose-colored. Any two colors which do not contrast well naturally, may be bro't together by the intervention of white, which will relieve any color, but should not be placed next yellow.

It is the desire of every one, as far as

possible, to keep a successional variety and maintain a continual beauty and gayety through the summer season, in the flower garden; and to effect this, requires great skill and experience to know the time of sowing and raising the plants which are to occupy the beds. Towards the middle or latter end of May is generally the season for stocking the flower garden with those plants which have been preparing during winter and spring, and which are raised either from cuttings or seeds, and brought forward by artificial heat. Such plants as heliotropes, salvias, verbenas, anagallis, calceolarias, petuneas, &c., will generally continue to bloom all summer.

Esculent Vegetables.

We mention some of the more common kinds of garden esculent vegetables, to point out the best kinds, and give some hints for their cultivation. If more vegetables were raised and eaten in the place of meat, there would be fewer diseases, and less expense for medicine than is now the case among those who eat so heartily and liberally of the *fat* of the land.

BEET.—The turnep-rooted blood beet should be sown for the earliest crop; the long blood beet for the late crop, and for winter use. The *blood beet* is the proper garden beet. The *scarcity*, the sugar beets (so called) white, yellow, and red, are inferior for table use. Every year we see accounts of new varieties, which are seldom mentioned a second time, while these old standard sorts hold their own from year to year.—We see people running around among their neighbors for *beet* seed, careless whether it is early or late, coarse fleshed or fine grained, sweet or insipid. It is just as easy, and cheap to have the best seed of the best kinds, as to have refuse seed of worthless kinds. Lately, a variety introduced from France, called *Bassano*, has attracted attention and commendation.* It is early, tender, and sweet. We hope to have seed for distribution by another spring. If you attempt to raise your own seed, let only *one* sort stand in the garden; otherwise, bees and other insects will mix them and the purity of the variety will be lost. We very seldom see an unmixed variety in common gardens, unless seed have been bought from good seedsmen.

The beet seed is a small black seed about the size of a pin head, inveloped in a ragged, rough, two or three lobed husk. Every *seeming* seed planted, then, is a mere envelope of two or more seeds, and two or three plants come up, very much to the surprise of the inexperienced, for each husk. When a little advanced they are to be thinned out to one in a place.

We prefer planting very early, and in rows eight inches apart, and at about *one inch* distant in the row. As the plants begin to gain size they make very delicate greens; and for this purpose are to be boiled leaf, root, and all. Continue to thin out until one is left for every six inches for full growth.

Every year, a great ado is made about monstrous beets—twenty and thirty pounders. There is no objection to these giants, unless they beget an idea that *size* is the test of merit. For table use *medium sized* fruits and vegetables are every way preferable; a beet should never be larger than a goose-egg.

It is equally foolish to suppose that large, coarse grained vegetables, whether potatoes, beets, parsneps, ruta bagas, or anything else, are as good for stock, though not so palatable to men. To be sure they fill up. But that which is nutriment to man is nutriment to beast; a vegetable which is rank and watery is no better for my cow than for me. It is not the *bulk* but the *quality* that measures the fitness of articles for food.

PARSNEP.—This vegetable is, to those who are fond of it, very desirable, as coming in at a time when other things are failing. For, although the parsnep attains its size by autumn, yet its flavor seems to depend upon its receiving a pretty good frosting. It may be dug at open spells through the win-

* A new variety called the *Bassano* has been recently introduced into France, and extensively cultivated, and it is said to be found in all the markets from Venice to Genoa, in the month of June. It is remarkable for the form of the root, which is flattened like a turnep. The skin is red, the flesh white, veined with rose: It is very tender, very delicate, preserving its rose-colored rings after cooking, and from two to two and a half inches in diameter. This description is from the *Bon Jardinier* for 1841. The edition for 1842 states that this variety is highly esteemed in the north of Italy, and that it is, in fact, one of the best kinds for the table.—*Hovey's Mag.*

ter, and early in the spring. It gives one of the first indications of returning warmth, and its green leaves are among the first which cheer the garden. On this account it must be dug early in the spring and housed, or it will spoil by growth.

We know of no difference in varieties. The *Guernsey*, is not a different sort from the common, but only the common sort, very highly cultivated in that island, where it sometimes grows to a length of four feet. The *hollow-crowned* and *Siam* are mentioned in English catalogues, as fine fleshed and flavored, but we have never been able to obtain seed of them.

The parsnep (*pastinàcea sativa*) is a native of Great Britain and is found wild by the road sides, delighting particularly in calcareous soils. It has hitherto been supposed that the seed would not retain its germinating power more than one year, but Mr. Mendenhall, in our last paper, states that he had raised freely from four year old seed. The parsnep is much sown as a field crop at the east, yielding 1,000 bushels, on good land, to the acre. They are invaluable, both to cows and horses. The quantity and quality of milk in cows is improved; and no farmer with whom butter making is a considerable object of interest, should be without a root crop — beet, parsnep, carrot, or ruta baga.

CARROT.—(*Dáucus carota.*) This is a native of Great Britain. The early horn and altringham are the best varieties sold by our seedsmen. Beside their use upon the table, they are largely and deservedly cultivated in the field for stock. A horse becomes more fond of them than of oats, and they do not, like the potato, require boiling before feeding out. A thousand bushels may be raised to the acre. The premium of the New York Agricultural Society for the year 1844, was to a crop of 1059 bushels the acre. The seed should be new each year, as it will not come well even the second year, and not at all if kept yet longer.

RADISH.—Every garden has its bed of radishes, and they are among the first spring gifts. They will grow in any soil, but not in all equally well. A mellow sandy loam is best; or rather that soil is best which will grow them the quickest. If they are a long time in growing, they are tough and stringy. It is said that a compost of the following materials will produce them very early and finely. Take equal parts of buckwheat bran and fresh horse-dung, dig them in plentifully into the soil where you intend to sow. Within two days a plentiful crop of toadstools will start up. Spade them under, and sow your seed, and the radishes will come forward rapidly, and be tender and free from worms.

The *Short-top scarlet*, is the best for spring planting. It is so named, because, from its rapid growth, the top is yet small when the root is fit for the table. There is a white and red turnep-rooted variety, also good for spring use. The turnep-rooted kinds, have not only the shape, but something of the sweetness and flavor of the turnep, and are by some preferred to all others. For summer planting, there is a yellow turnep-rooted sort and the summer white. For fall and early winter, the white and black Spanish are planted. When radishes are sown broadcast, it must be very thinly, for, if at all crowded, they run to top, and refuse to form edible roots. For our own use, we sow on the edges of beds devoted to onions, beets, &c., and thrust each seed down with the finger.

The radish (*Ráphanus sativus*) is a native of China, and was introduced to England before 1584.

SALSIFY, *or Vegetable Oyster.*—We esteem this to be a much better root for table use than either the parsnep or carrot. It is cultivated in all respects as these crops are. Some have been sceptical as to their possessing an oyster flavor. They seldom attain the true taste until, like the parsnep, they have been well frosted. But if dug up during spells in winter and early in the spring, and cooked by an orthodox formula, they are strikingly like the oyster. We have just consulted the oracle of our kitchen, and give forth the following method of cooking it: First, oblige your husband to raise a good supply of them. When you have obtained them, scrape off the outside skin—cut the root lengthwise into thin slices—put them into a spider and just cover with hot water.

Let them boil until a fork will pass through them easily. Without turning off the water, season them with butter, pepper, and salt, and sprinkle in a little flour—enough to thicken the liquor slightly. Then eat them.

The success of this gustatory deception depends, more than any thing else, upon the skill in seasoning. If well done they are not merely an apology, but they are a very excellent substitute for the shell-fish himself; a thousand times better than pickeled canoysters—those arrant libels upon all that is dear in the remembrance of a live oyster.

Every one may save seed for himself, as it will not, if well cultivated, degenerate. It is a biennial, and roots may either be set out, or left standing where they were planted. When the seed begins to feather out, it must be immediately gathered, or, like the dandelion or thistle, it will be blown away by the wind. This vegetable should be much more extensively cultivated than it is.

BEANS.—There are three kinds—English dwarf, kidney dwarf or string, and pole beans. The first kind, so far as our experience has gone, are coarser than the others, and, in our hot and dry summers, very difficult to raise.

Of kidney or bush beans, there is a long catalogue of sorts. The *Mohawk* is good for its hardiness, enduring spring frosts with comparative impunity. The *red-speckled valentine* is highly commended. But after a trial of some twenty kinds, we are entirely contented with one—the *China red-eye*. It is early, hardy, very prolific, and well flavored.

Of the pole beans, one sort, the *Lima*, might supercede all others were it a little earlier. It is immensely prolific; its flavor unrivalled, and nearly the same in the dry bean, as when cooked in its green state, a quality which has never, we believe, been found in any other variety. To supply the deficiency of this variety in earliness, we know of none equal to the *Horticultural*. With these two kinds, one has no need of any other. Pole beans will not bear frost, and are among the last seeds to be planted, seldom before the last of April. The bush-bean may precede them a fortnight.

The English dwarf (*vicia fàba*) is a native of Egypt; but has been cultivated in England from time immemorial, and, it is supposed, was introduced by the Romans.

The kidney dwarf, (*Phaseolus vulgaris*) is a native of India, and was introduced into England about the year 1597.

The pole bean (*Phaseolus multiflorus*) is a native of South America, and was introduced to England in 1633.

Pole beans are not, strictly, annuals. In a climate where the winter does not destroy them they bear again the second year, and we believe yet longer. Gov. Pinney, of Liberia, on the African coast, stated in a lecture, speaking of the vegetable productions of that region, that the bean was a permanent vine, like the grape, bearing its crops from year to year without replanting. The bush bean is strictly an annual. If the pole bean were protected in the ground, or raised and put away like sweet potatoes, dahlias, &c., in the cellar and replanted in the spring it would bear again the second season. Perhaps an earlier crop of beans might thus be secured.

The bean crop, by field culture, is not to be overlooked. Great quantities of dried beans are consumed by families, by the army and in the navy, and they always bear a good price, when they are well grown and well cured. We give, in another column, the experience of the late Judge Buel, of Albany, N. Y., in field culture of beans. They are excellent for sheep, not from their fattening properties, but for improving their fleece. Analysis has shewn them to be rich in those properties which are 'wool-gathering.'

SWEET POTATO.—If it were not for the difficulty of keeping the sweet potato through the winter, it would soon be universally cultivated. As it is, large quantities are raised in the central and southern parts of this State.

Our object in speaking of it now, is to bring to notice a kind raised by Aaron Aldredge of this place. It was brought here from New York city by the late Gov. Noble, under the name of the Bermuda sweet potato. It is, by far, the best that we ever tasted. We understand that Mr. A. will

have slips for sale at the proper time, and we advise those careful in such matters to procure and cultivate this kind.

Longworth's Ohio, or Cigar-box, Grape---Light thrown upon its Origin.

Great interest has been felt on the question of the origin of this very excellent grape. It was sent by Mr. L. to Boston, and Mr. C. M. Hovey, in his Magazine, (Vol. 8, p. 42,) suggested that it was the *Herbemont's Madeira*. Mr. Longworth denied the identity, saying that he had this last named grape from Mr. Herbemont himself, and the two were totally different.

Again, (Vol. 9, p. 69,) Mr. Hovey supposed it to be the same as *Norton's Virginia Seedling*. This supposition was set aside by a report of a committee of the Cincinnati Horticultural Society made during the summer of 1843. (Western Farmer and Gardener, vol. 4, p. 66.) The idea of its being the *Le Noir* was dropped almost as soon as mentioned. And thus the matter has stood until now. We suppose that its history can now be traced, so far as we know, for the first time; but even now the question of the *variety* and the *name* is to be investigated and settled.

Last fall we saw a notice of a grape sent to the Cincinnati Horticultural Society from Madison, in this State, and which was pronounced to be the same as Longworth's Ohio. Some weeks since, in a conversation with Judge Morrison, of this place, we learned that Mr. Fitzhugh, of Madison, supposed that he was the person who originally sent to Mr. Longworth the cuttings from which the famous Cigar-box, or Ohio, was obtained. At our request Judge Morrison promised to gain from Mr. F. a full account of all that he knew of the grape. We now present the account, together with a few appended notes illustrative of the text.

INDIANAPOLIS, April 11, 1845.

Mr. H. W. Beecher—Dear Sir—According to promise when I left for Madison, three weeks ago, I give you the result of my enquiries as to the identity of Mr. Longworth's celebrated "*Native Ohio*" or "*Cigar-box*" grape, with the species known at Madison as the *Herbemont*.

A very intelligent and highly respectable gentleman of the latter place, George Fitzhugh, Esq., formerly of Baltimore, two years ago last fall showed me a specimen of the *Herbemont*, which I thought superior to any thing of the grape kind I had ever seen, and told me its history; and again, the last autumn, Mr. F. presented me a bunch or two of the same grape. On my late visit, I mentioned your desire to hear his statement, and he gave me the following:

Nicholas Herbemont found the grape about fifty years ago at Columbia, South Carolina, and supposed it a native till about the year 1833, when having sent some of the fruit to Gen. M'Call of Savannah, Georgia, and to a gentleman of Charleston, South Carolina, they both informed him they were already possessed of the grape, having received it from France, and from Madeira.

About fifteen years ago, (1) Mr. Fitzhugh sent from Baltimore to Mr. Longworth some roots and cuttings, among which was the *Herbemont*, but received no acknowledgment; and Mr. F., therefore, concluded that they were never received. Mr. Fitzhugh himself brought a few to Madison in 1838, and distributed them. The grape had, however, been introduced from Cincinnati prior to that time, but it run out, and all of the kind now there are from Mr. Fitzhugh's stock.

That the two are one and the same, Mr. Fitzhugh considers beyond question. Other competent judges unhesitatingly affirm the same opinion. Mr. Brace and another gentleman, members of the Cincinnati Horticultural Society, were at Madison last season when the grape was ripe, and pronounced it the "Native Ohio," or "Cigar-box." A box of the fruit was forwarded from Madison to Cincinnati, to the care of Mr. Brace, to be exhibited to the Cincinnati Horticultural Society, but that gentleman being absent, it was not exhibited. (2) Mr. Otis Page, of Madison, who has the grape in his garden, from Mr. Fitzhugh's stock, has seen it in a garden at Louisville, where it was called *Herbemont's Madeira*. (3)

Mr. Fitzhugh believes that Mr. Longworth did not receive the communication he sent with his present, and therefore may not have much regarded it, and thus no farther notice may have been taken of it till the excellence of the fruit commanded the homage of the great Horticulturist, who could not know whence it came.

JAMES MORRISON.

(1) Compare with this Mr. Longworth's own account of the receipt of this grape; (Hovey's Magazine, vol. 9, p. 68.)

"Cuttings of the Ohio grape were left in my absence, with my gardener, some fourteen

years since, in a cigar box, at a period when I was advertising for native grapes in various parts of the Western and Southern States. Out of about sixty varieties, three or four only were worth cultivating; and this, far superior to the others. Hard as times are, I will give five hundred dollars for a native grape whose fruit shall surpass it."

(2). We presume that these *were* exhibited, as we distinctly recollect a notice of it at the time; although we have failed, after a diligent search, to find the notice in any of the records of the Society's meetings which we have at hand.

(3). Mr. Longworth affirms, and on grounds which we are to presume sufficient, that it is *not* the Herbemont's Madeira; for he has this grape from Mr. Herbemont himself. Mr. Fitzhugh or Mr. Page doubtless can give the name of the person in Louisville who has a grape resembling Longworth's Ohio, and called Herbemont's Madeira.—Will not Mr. Longworth, or a committee of the Cincinnati Horticultural Society, visit Madison and Louisville, and, upon the light now seemingly cast upon the subject, settle, if possible, this interesting question?

Field Root Crops.

If we thought it would do the least good, we should urge the raising of a patch of roots for cattle, and especially for milch cows. From mid-winter, and especially *just before* spring opens, beets, carrots, parsneps, potatoes, ruta baga, and mangel wurtzel are of the highest utility. After months of dry fodder, and of slops thickened with corn-meal, cattle need, their stomach, their blood, need a change of diet; and none can be better than roots. At the East it is no longer a debatable question—root crops are as regularly laid in as grain or grass crops. The chief difficulty at the East, in introducing "new fangled notions," arises from the regular, routine habits of farmers and their settled aversion to change from old ways. Very little of this spirit exists at the West. Our very essence of life is *change*. Our population have broken up from old home-steads—moved off from old States—abandoned the comforts and settled life of long tilled agricultural districts—to come into a new country, where they *have* to practice new ways, live differently, and labor by new methods; and, by consequence, the farming community of the West are remarkably free to meet and adopt agricultural improvements. But our difficulty lies in a different direction. Our farmers have large farms—are ambitious of large crops, large herds of cattle, large droves of hogs, and of a style of husbandry which brings in a large pile, and all at once; so that the idea of *good* farming is *large* farming. Many a sturdy Kentuckian will very patiently plow, two or three times, his fifty or hundred acres of corn, and think nothing of it; but to put in half an acre of carrots, or beets, to weed and work, to harvest and store the vexatious little crop, this seems a piddling business. Our big prairie farmers, our heavy bottom-land farmers, our stock farmers who "hog" one or two hundred acres of corn, of their own planting or of their neighbor's, they do not love *little* work.

There is a man in Marion county who lives on thirty acres of land of about a middling quality. He winters seven cows, two horses, and two pigs. He raises corn and grass enough for his own use, and sells none. Every year he puts in about a quarter of an acre of parsneps, or ruta baga, for winter and spring fodder. His garden in summer, and his dairy all the year round, are represented in market. He probably does not receive five dollars at *once*, on any one sale, through the year. We never looked into that old chest under his bed; but we will venture much, that if the shrewd housewife would keep her eagle eyes off long enough to give us a chance, it would be found that this man has made, and laid up, more money in the last five years from his thirty acres, than any farmer about here from six times the amount. Our farmers *have not grown rich on large and careless farming; but many are growing rich on small farms and careful husbandry.*

When the dairy shall be more thought of—when wintering stock, and fattening it, shall be more carefully studied—we predict that our farmers will annually raise thousands of bushels of roots, and have capacious cellars under their barns to store them in.

Make a bridge of silver for a flying enemy.

ORIGINAL CORRESPONDENCE.

For the Indiana Farmer and Gardener.

Record your Failures.

One occular demonstration, whether seen in the first person, or credibly and particularly narrated by a competent authority, one real, genuine demonstration, well recorded, is of more value than is commonly supposed. By it a fact is established and settled; a new element of power is placed in our hands; an instrument of well tried temper in which we may safely trust.

I once heard a very celebrated student of natural science remark, that a satisfactory and adequate trial of any principle is as great an acquisition to our knowledge, when resulting negatively, as when terminating in a brilliant discovery of some positive and practical fact. Or, to apply and illustrate this remark, it is as important to know where wheat will *not* grow, as where it will; what cultivation will *fail*, as well as what will succeed; for a history of failures is just so many sources of disappointment and discouragement shut out and stopped—covered up, and labelled *no use*.

The agricultural papers are beginning to find out this; and every week a request meets my eye in some of them, that their correspondents would "send in particular accounts of FAILURES that they have experienced or seen." It seems strange that the old adage, "one swallow don't make a summer," which, for our purpose, may be thus rendered: *One chance experiment establishes no principle*, should have been so tardily received and acknowledged by those papers which most of all, should cling closely to experience.

I have been led on thus far, Mr. Editor, by observing how much the community suffer in purse and patience through lack of a little more enterprise and communicativeness on the part of those who have been deceived or disappointed.

A few interested persons collect a dozen testimonials, the genuineness of which we by no means question, that a certain plow, or bee-hive, or medicine, or manure, or—what not, is just the very best and most perfect article ever offered to the people.—Well, these twelve affirmations go a great ways, because the *twelve dozen* failures have no friends to set them forth; we hear every thing on one side and nothing at all on the other—we hear the story of the inventor or seller, but not of the buyer or user. I ask, can we ever get at the facts? I think we can, by the aid of well conducted agricultural and scientific papers, whose various subscribers through the State shall be rootlets which shall send up a plentiful experience to the aid of the great common cause. But papers supported by *everybody* are usually attended to, properly, by *nobody*—and though they are necessary and indispensible, still they must have under them a complete *organization* of the whole agricultural corps in the region; there must be an understanding among the members of these societies; a *division of labor*, but a *community of interest*, the fruits of which shall go up daily to be embodied in the records of the central paper. Such a paper would rapidly become valuable, for it would be to the great mass of the farmers what the "American Journal of Science and Art" is to the learned and scientific world—a record of mutual progress—at once a fountain and a receiver.

How is it in Indiana? Are any of the counties thoroughly organized—are they all alive and active—and more than all, do they take your paper, or any other as useful?

Should time and my other engagements permit, in your next number, I hope to be able to give a short history of some experiments, and suggest an outline of investigation, which, it seems to me, must lead to some surprising results—I refer to the effect of electricity upon vegetable growth—a subject much talked of, but little understood—and as yet, investigated fully and satisfactorily by none. All of which, pending your approval, is respectfully submitted. F.

For the Indiana Farmer and Gardener.

Peas and Strawberries--or Pigeons?

INDIANAPOLIS, April 12, 1845.

Mr. Editor:—Among the hints in your useful paper, for which I feel indebted, you have not yet touched a point of annoyance, to which my attention has been drawn for some years, with *increasing interest*.

After procuring the best varieties of the strawberry, and bestowing on them much attention, until the prospect of some spare baskets of fruit was encouraging, I have found the *pigeons* taking so *large toll*, that the gleaning after them was not worth picking.

Some years I have put in rows of choice early peas, and aware of the interest the surrounding pigeons were taking in the enterprize, from former experience, I covered the rows with brush; but after due reconnoitering, the obstruction was not seriously regarded, and although the peas were so thin and scattering as not to be worth sticking, I have no doubt the pigeons around were in fine order, when brought to the pot.

It is interesting to observe, that the number of pigeons in the vicinity seems to have increased steadily, and that they are now making successful researches under the brush for early peas.

I do not hear of complaints from the owners of pigeons, as to injury from them to *their* gardens, and I have thought the pigeon-policy was, *only* to depredate on the beds of *other* than their owners, and I have been advised to start a stock of my own in self defence; but not feeling it a clear point, I will never keep a pigeon while they retain their present habits.

As nothing short of Colt's ever-revolving fire-arms would effectually convince the pigeons of the just claims of proprietors to the fruits of their ground, I have sometimes thought of opening such a battery on them, but deem it rather unneighborly and dangerous.

Unless, Mr. Editor, you can induce the owners of pigeons in town favorably and kindly to consider the subject, and compute the annoyance and injury from the pre-emption claims which their pigeons assert on strawberries and peas, against the trifling benefit (I suppose) realized from them, I fear we may conclude that the matter is beyond remedy. A SUBSCRIBER.

We deeply sympathize in the affliction of our friend, and most fervently hope that his troubles will "make to themselves wings and fly away." Blue pills administered from a good "Joe Manton" or "Colt's revolving rifle," would certainly have a tendency to remove such *bill*-ious attacks. Our neighbors have tried it on our pigeons with great success, and we have never grumbled. Where *birds* devastate a garden we are disposed to leniency, because they consume also vast quantities of insects. But pigeons are of no benefit in that way, and very destructive in other; and certainly we should *shoot*.

Ed. Ia. Farm. & Gard.

Field Culture of the Bean.

"Beans may be cultivated in drills or in hills. They are a valuable crop, and, with good care, are as profitable as a wheat crop. They leave the soil in good tilth. The China bean, with a red eye, is to be preferred. They ripen early, and are very productive. I cultivated beans the last year in three different ways, viz: in hills, in drills, and sowed broad-cast. I need not describe the first, which is a well known process. I had an acre in drills, which was the best crop I ever saw. My management was this:—On an acre of light ground, where the clover had been frozen out the preceding winter, I spread eight loads of long manure, and immediately plowed and harrowed the ground. Drills or furrows were then made with a light plow, at the distance of two and a half feet, and the beans thrown along the furrows about the 25th of May, by the hand, at the rate of at least a bushel on the acre. I then gauged a double mould-board plow, which was passed once between the rows, and was followed by a light one horse roller, which flattened the ridges. The crop was twice cleaned of weeds, by the hoe, but not earthed. The product was more than forty-eight bushels, by actual measurement. The beans brought me one dollar the bushel last fall. The third experiment was likewise upon a piece of ground where the clover had been killed. It was plowed about the first of June, the seed sown like peas, upon first furrow, and harrowed in. The drought kept them back; but about 65 rods of ground, on which the experiment was made, gave a product of twelve and a half bushels. The crop was too ripe when it was harvested, and as it was cut with a sythe, I estimated that about two and a half bushels were left upon the ground. No labour was bestowed upon them from the time they were sown till they were harvested."—*Buel.*

We select in addition to the above remarks, some excellent directions from the pen of A. B. Allen of the American Agriculturist.

Soil.—The bean will grow well in any soil, from the stiffest clay to the loosest sand; but in our experience of its culture we have found that a light gravel, abounding somewhat with stone, suits it best. In a clay soil the bean does not ripen so well or show so pure a white, and it is somewhat subject to mould and rot; in rich loams it runs too much to vine; and in light shifting sands its growth is small and somewhat parched.

Manure.—A very favorite manure for a bean crop in some parts of Massachusetts is chip-dung; but composts of most any kind answer very well, especially those in which muck predominates. Lime, ashes, charcoal, and plaster, are more or less beneficial as a top-dressing. Long manure fresh from the barn-yard is rather too rank, and is apt to make the beans run too much to vine; but this depends something upon the soil to which it is applied. Whatever fertilizing materials, however, are made use of, if the land be very poor and rough, and it is not particularly wished to improve it for a succeeding crop, we would recommend that they should be used for manuring in the hill; otherwise be spread broadcast upon the land directly after plowing, then well incorporated with the soil by harrowing. Thus prepared, the ground should be planted as soon as possible.

Seed.—The best kind of field bean, i s of

small size, plump, round, and slightly oblong in shape and of a white color. It is common in the eastern states, and one of the finest samples of it which we have seen, is now being distributed over the country by that indefatigable friend of agriculture, the Hon. H. L. Ellsworth, Commissioner of the Patent Office.

Harvesting.—This should be done in dry weather as soon as the bean is well formed, and there is no danger of its moulding or shrinking; if left till touched by a hard frost, the pods are liable to crack open, and much waste ensues from their shelling. When sown broad-cast on smooth land, the most rapid way of harvesting is by mowing; when in hills or drills, especially in rough ground, it is customary to pull the vines by hand, which being light work, and demanding a good deal of stooping, may also, like the dropping of the seed, be performed by children. As the bean-vines are pulled they are thrown into small heaps, and sunned daily like hay. As soon as sufficiently dry, they should be taken to the barn, threshed, and the straw stacked. We have never found it answer to stack beans before being threshed; they have invariably become dark-colored or spotted, and in addition to this, we lost more or less by rot and mould.

Dr. Kirtland, on the Location of Orchards.

The natural condition of almost every acre of ground on the Western Reserve is such that by the application of suitable means, it can be brought into a tillable state and be rendered capable of sustaining a flourishing orchard, so far as the growth is concerned. Notwithstanding it would be a feasible matter to grow the trees, almost universally, few localities can be met with in which the production of a crop of fruit can be relied upon, with any certainty, every year, or even every second year.

Favored situations are, however, scattered over every county in northern Ohio, in which fruits have not failed more than twice since the settlements commenced early in the present century.

It is a matter of no small interest to one, who is about to establish himself as a practical horticulturist, to be able to select such a location, without resorting to the tedious and expensive mode of testing its character by a long course of experiment. An investigation of the causes that operate to create these distinctions in the character of different localities, will, it is believed, enable him to make, at once, a judicious selection.

The failure of our fruit crops is usually owing to one of the following causes, *to wit:*

1. Fruit-buds not forming during the preceding season.

II. Destruction of the fruit-buds during winter.

III. Injury sustained by the expanded blossoms or recently formed fruits from vernal frosts.

1st. *Fruit-buds not forming during the preceding season.*—Excessive production of fruit in one year usually exhausts the powers of the tree so much that it will cease to produce more, till it can recover its vigor by one or two years' rest.

The careful horticulturist will ever guard against such an occurrence by picking all the surplus productions in a young state. Attention to this point will usually preserve the tree in a healthy and bearing condition, and, at the same time, greatly improve the size and quality of the remninder of the crop.

The character of the summer and autumn, in regard to temperature and moisture, has an important bearing on the formation of fruit-buds; but, as we cannot control peculiarities of the weather, we will not dwell on this point.

Soil has a still more important agency in this matter. On moist and rich soils all kinds of fruit trees form a larger share of wood-buds than fruit-buds, especially when the trees are young; while on dry and silicious soils, especially those composed of considerable portions of coarse gravel, the reverse is true. Of the latter character are most of our chesnut timbered elevations, and the dry gravelly ridges running parallel and near the south shore of Lake Erie. These latter, though now elevated from one to two hundred feet above the present surface of the Lake, are supposed, by some of our geologists, once to have been the shore of this fresh-water sea.

So far as my observation extends, these latter ridges, and especially the one called, from its position, the north ridge, are more favorable for the formation of blow-buds, and at the same time more exempt from the operation of all contingencies unfavorable to the production of fruit, than any locations besides, in the United States.

My friend, Mr. Ernst, of Cincinnati, last summer on visiting my place, situated on this north ridge, expressed much surprise at seeing young pear trees literally loaded with fruit, though none of them had been transplanted from the nursery more than two or three years, and had not attained a height greater than seven or eight feet. Spur-pruning and dwarfing on the quince had been resorted to with some of the trees—yet those on pear stocks left to grow naturally, were so productive, that it became necessary to pick much of the young fruit. At this moment I have a tree of the Frederick of

Wirtemburg Pear, standing in my grounds, that was engrafted on a pear root *three* years since, and has been left to take its own course. It has grown only eighteen inches, but now shows *five* well formed blow-buds.

It was a matter of equal surprise to me a few years since, in visiting the beautiful location of Mr. Ernst, at Spring Garden, near Cincinnati, to see the luxuriant growth of his trees, and to be informed that his pear trees, twenty feet high, had never yet produced a fruit or even a blossom. His soil is a rich, limestone loam.

Soils and geological formations, have an important relation to horticulture, and should be the subject of constant attention and research by those who expect to succeed with it, as either an art or a science. An intimate knowledge of this subject will often enable us to correct important defects in the soil of grounds set apart for orchards. It is better to spend half a day in making a deep and extensive excavation in the earth and then to fill it up again with an artificial soil, that shall be congenial to a fruit tree that we are about to transplant, than to set it into a natural soil, whose properties will either starve or poison our favorite tree. It is however preferable, when it is in our power, to select locations that are naturally adapted to our purpose.

2. *Destruction of the fruit-buds during winter.*—It too frequently happens in unfavorable localities, particularly in the valleys of our smaller streams and on most of our argillaceous formations, the blow-buds fail to swell and develope themselves with the progress of spring. If they are examined with the eye, and especially if we are aided with a microscope, the centre of a transverse section of the buds will present a black spot or point, which is the dead pistil. The germ will also be found in a similar condition. This appearance is many times observable before mid-winter, and in most instances, is the result of unusually mild and warm weather, suddenly followed by severe cold. The Apricot, Peach, English cherry, Plum, Morello cherry, and Pear, are liable to this disaster, in the order in which they are enumerated. The apple is very rarely injured during winter, but the apricot and peach buds will, we believe, in all instances, be killed, whenever the temperature ranges as low as 20° below zero, perhaps not lower than 18°, whatever may have been the previous state of the weather. The buds of the finer varieties of the cherry are occasionally destroyed in this manner.

Why these causes do not reach with equal force the fruit-buds of orchards situated upon the high chestnut ridges and upon the south shore of Lake Erie, is not always very apparent; but perhaps a satisfactory explanation will be afforded before we close this article. At present it is sufficient to assert the fact that in these favorable locations the weather of winter has never yet destroyed the blossom-buds of any variety of fruit except the apricot.

The cultivators of fruit residing in those unfavorable situations will pardon us if we break the thread of our subject and run off into an episode, at least so far as to suggest that if they were to raise dwarf trees, slight protection could be afforded, during winter, that would, perhaps, save the crop of fruit. It is also a query whether if they were to intermix such dwarfs among clumps of red cedars, pines, spruces, or other evergreen trees, abundant protection would not be obtained.

An experiment partially tried, with evergreens, some years since, induced us to believe that they could be successfully employed for this purpose. Nothing would be more ornamental to the grounds of a farm house, than clumps thus formed of evergreens and fruit trees.

A very slight protection only is required. We once knew a peach tree that forked into two branches near the ground, to be split down by accident, in the month of December. One half fell upon the gronnd, the other remained erect. In the following spring it was discovered that the blow-buds on the prostrate branch were uninjured, while the whole crop of peach buds on the other branch, and in the neighborhood had been destroyed. The branch was carefully raised, and sustained in its natural position; matured a great number of peaches, while the counterpart was entirely barren.

There is one cause that sometimes kills all the fruit-buds during winter, without respect to locality, viz: sleet falling and congealing in thick coats of ice upon the limbs, followed by severe cold weather. The peach buds at Cleveland, and to a great extent west, along the lake shore, were thus destroyed, three or four years since; while east of Euclid, they escaped, owing to the circumstance, that the storm there, appeared in the form of snow, instead of sleet. That year and the year 1834 we believe, were the only two seasons, since the settlement of the country, in which there has been a total failure of peaches in this vicinity. On this point we may, however, have been misinformed.

3. *Destruction of the blossoms or the recently formed fruits by vernal frosts.*—Late spring frosts are the most destructive agents with which our fruits have to contend. In very many situations the whole crop is either entirely cut off, or materially diminish-

ed in quantity and impaired in quality. This is the case in the valleys of the smaller streams and on the argillaceous formation to which we alluded under another head. There are other localities again, on which the fruit has escaped from the effects of this destructive agent every year, with one or two exceptions, since the country has been settled. These are the chestnut ridges and the shore of Lake Erie.

The favorable and unfavorable localities are in many instances situated near each other. The difference may be occasioned,

I. By altitude;
II. By exposure;
III. Soil; and
IV. Contiguity to large bodies of water.

1st. *Altitude.*—Observation shows us that, with few exceptions, the more elevated the locality, the greater certainty there is for fruit crops.

The peach tree rarely fails on the high grounds in Burton, Mantua, Shalersville, Edenberg, Hartford and Poland; and well cultivated orchards of the apple and pear trees bear some fruit every year. On the low grounds in the same townships, the peach is not productive more than one year in four, perhaps not as often, and the apple and pear are very uncertain.

Relative Altitude, in respect to the adjacent country, has probably a greater influence, than the *actual altitude*, and it has been observed that the more suddenly and abruptly an elevation rises above the surrounding country, the more certain is the locality for the production of fruit.

At the approach of a frosty night in the spring, the cold air observes the same laws as would an equal volume of water discharged upon the surface of the country. Owing to its specific gravity, it rushes down from the hills into the valleys and lower grounds, and displaces the warm air that may have accumulated there. Having filled up the lower levels its motions subside and the atmosphere becomes quiet. Every one must have observed the perfect calm that exists on the low grounds, during one of these frosty nights that is so destructive to the fruit.

The warm air thus displaced ascends with equal rapidity to the higher levels and seems to preserve there a warmer temperature, while the temperature of the lower grounds is declining.

These contrary currents of cold and warm air will continue during the night to pass up and down the highest elevations, exciting successive gusts of wind, that serve very essentially to dissipate the frost.

The result will be, that on the low grounds the thermometer will fall several degrees below the freezing point and the fruit will be cut off; while on the higher elevations the mercury in the thermometer will not descend lower than 32° and the fruits will escape. Five years since my brother, B. Kirtland, and myself, tested by experiment the correctness of this view.

In the month of May, of that year, the fruit trees put out an unusually full bloom. Warned of the approach of one of these destructive frosts by the thermometer's falling down to about 400 at one o'clock, on a clear afternoon, we prepared to test the progress of the change of temperature both in a locality where we were sure the fruit would be killed, and in another where it would escape.

Having compared our thermometers and set our watches, we repaired to our assigned stations. Mine was in the valley of Yellow Creek in which is situated the village of Poland; his was the chestnut ridge, known as the Mackerman Farm, one mile distant, and elevated sixty feet above my position.

We noted our observations. At 7 o'clock P. M. both thermometers stood at 34°
At half past 8 mine had sunk to 32°
At half past 9 " " 30°
At 10 " " 27°

when the grass, fruit-blows, and vegetation generally, had stiffened with frost.

At 9 o'clock his thermometer had fallen to 32°,—but at no time during the night did it descend lower, though it repeatedly fluctuated one or two degrees above. A greater difference existed in the state of the atmosphere than in the temperature, at the two stations.

A dead calm prevailed at mine during the whole night. Not a breath of wind was observable, and my observations were made by a candle in the open air.

At his station a succession of breezes blew during the whole night, so rapidly that at no time was it safe to open his lantern. Whenever they blew the most rapid, the thermometer would begin to ascend and would occasionally vary two or three degrees.

It was evident on the succeeding day that the fruit was entirely destroyed on the low grounds where my observations were made, while not a bloom was injured on the chestnut ridge occupied by my brother.

A less elevation than sixty feet is sometimes sufficient to save the fruit. In others a much greater is necessary.

We once knew all the peach buds above a certain horizontal line to escape destruction, during a cold night, while those situated below it were killed. That horizontal line at my then place of residence, in Poland, was about ten feet above the surface of the ground. The trees during the summer and

autumn presented a singular appearance, their upper limbs bending under loads of fruit, and the lower, entirely barren.

Only a few of the highest grounds on the Western Reserve were elevated above the reach of the severe frost that occurred about the first of June of last year. It reached many localities that had been considered almost certainly safe.

While considering the subject of altitude, we should recollect that in autumn it also exerts an important influence over the fruit crop of the succeeding season. At the approach of a cool night in the fall of the year, the same changes as we have just described, occur in the temperature of the high and the low grounds. A severe frost in one night may kill all the tender vegetation on the latter, while on the former it may be so slight as to give only a check to vegetative action. The impression may be absolutely fatal to the blow-buds on the one, and favorable to them on the other. If not fatal in the one instance, it impairs their vitality, renders them weak and unfit to resist the cold of the ensuing winter; and if they should escape and produce fruit, that fruit will be knotty, blotched and unfair.

In the other instance the cold may be just sufficient to arrest the active processes of vegetable life, and result in hardening and maturing the young wood and fruit-buds.

2d. *Exposure.*—On those localities we have specified as *favorable* for fruits, especially the immediate shore of Lake Erie, a northern exposure is decidedly more certain of producing fruit than a southern.

The apricot, in particular, should have a northern position in this vicinity. We once knew a tree that was a sure bearer, of the finest fruit, that stood on the north-east side of a church, and was sheltered from the north by another building.

On those localities that we have pointed out as *unfavorable*, it is equally necessary to guard against a full northern and a full southern exposure, particularly in the cultivation of the more tender fruits. When unprotected from the north the blow-buds of many kinds may be killed, as we have already asserted by the temperature falling down to the vicinity of 20° below zero.

If on the other hand, the trees are set out on a southern aspect, the impression of the sun upon them when in a frozen state is very liable to do great injury, and almost yearly to destroy their blow-buds.

At a certain country residence, subject to frosts in the spring and autumn, and a low degree of cold in winter, a number of English cherry and plum trees were placed at the north side of the house, and others upon the south. For a number of years the trees in both positions were shy bearers, but at length as the trees grew larger, and were protected by clumps of evergreens, aided also by the construction of several buildings around them they became more certainly productive.

(*To be continued.*)

Strawberries--Male and Female Flowers.

From the Cincinnati Gazette.

Messrs. Editors: The season for the blossoming of the strawberry is at hand, and it behooves all who wish to raise this fine fruit, to examine their beds, and ascertain if they have both male and female plants, and the proper proportion of each. There should be one male to ten or twelve of the females. The blossom of the male is larger and more showy, than the blossom of the female. I have been at a loss to describe the two blossoms, to persons ignorant of botany, (who would not understand the terms, staminate and pistilate) and enable them to distinguish the difference. I was trying to do this recently, when a Dutch boy was present, the son of one of my tenants, who described the difference so as to make it apparent to all. Why, said he, "you not know the man from the woman. The man he have the beard, the woman have none." In the female plant, the pistils, or female organs only, are perceptible, i. e. the little yellow centre, at the end of the stem in the centre of the flower. By pulling the flower apart, the stamens, or male organs, will be found attached to the hull, but very short and defective. In the male plant the stamens one-third of an inch long, and like the beard, cover completely, what may be called the face of the blossom, with yellow heads, which contain the principle of impregnation. As soon as the white leaf of the blossom falls, every female blossom will show the fruit, whilst in the male blossom there will generally be no fruit; and where there is any, most of them will be small and ill shaped. The reason is, each blossom may be said not to be one, but near one hundred. Each one of the hundred must be impregnated to produce a perfect fruit. The female organs being covered by the stamens (beard) are generally defective, and a portion only, if any, are impregnated; and I have never seen a blossom produce a perfect fruit. The portion impregnated, swells out, the other shrivels, and the berry contracts in that part. The white, and monthly varieties, are exceptions. In these, both organs are perfect, and as a consequence, the fruit small. In raising from seed generally, an equal portion of male and female are produced, and their runners never change their character. But the male soon roots out the fe-

male, as it increases faster, being the stronger plant, none of its energies being exhausted in perfecting fruit. When the people of the East are not too wise to examine and understand this subject, they too will have gardeners who will supply the market with 120 bushels in a day, and of the finest fruit, from four to six cents per quart, as is done in the height of the seasons in our markets. I am told an Eastern nurseryman, who has been in the business some forty years, pronounces the system absurd.

If the writer had read the works of all botanists who have written on the strawberry during the life of Linneus, and since his day, he would speak with more modesty. We have not an ignorant gardener, who attends our market, who does not better understand this plant. The same writer says, the Hudson Bay Strawberry is thrown by as worthless. Yet this is one of the largest, most productive, and of superior quality, and more cultivated in our State, especially for market, that any other. They are discarded because the character of the plant is not known. An acre of the male and female plants, by themselves, would not in one hundred years, produce a single perfect fruit. I will give the writer, or any other nurseryman one hundred dollars for a single root of Kean's Seedling, or any other variety, so perfect in stamens and pistils, as to produce a full crop of fruit, equal in size to the discarded Hudson, or Hovey's seedling, where not placed contiguous to male plants. Few nurserymen understand the subject, for a plain reason. Within a narrow space, they cultivate some twenty varieties or more for sale. Among so many varieties, they will have more or less male plants, and the wind and bees carry the pollen from bed to bed. This I pointed out to Mr. Buist, who set out a bed of female plants, which he supposed would never fail to produce a full crop, one hundred feet distant from all others, and subsequently wrote me, they did not produce a single perfect fruit. This subject has been for the last eighteen months before our Horticultural Society, and the question submitted to a large committee of talented botanists, and market gardeners. Their report will be made soon after the blossoming season. Those whose past experience did not enable them to give a decided opinion, after one season's experiment, requested another year to make up their report, intending this spring, to report their experiments. Mr. Hovey has promised to test the matter as relates to his own seedling, and I shall expect to hear from him, as soon as the flowering season is over. I will cheerfully pay him one hundred dollars for a single root of his seedling, that will, separate from all other plants, yield a full crop, of usual size. It would be worth $500,000 to the United States alone.

N. LONGWORTH.

Extracts from our Exchanges.

(*From the American Agriculturist.*)

The New York Agricultural Society awarded premiums for various crops, which we mention for the purpose of exhibiting what crops may be raised by careful cultivation.

WHEAT.—To Mr. Watson, Canandaigua, he having raised 215 bushels on four acres and twelve poles of ground, or nearly fifty two and a half bushels per acre.

CORN.—Second premium (first not awarded) to J. F. Osborn of Port Byron, his crop being 213 3-8 bushels on two acres of land. Mr. Enos of Madison county, raised 147 bushels to the acre, but did not forward his application in time for the premium.

BARLEY.—S. B Dudley, East Bloomfield, 69 90-00 bushels per acre; second premium crop, fifty bushels and forty seven pounds; third premium crop, forty-seven bushels and twenty-five pounds.

OATS.—First premium crop, 120⅝ bushels per acre; second premium 104 bushels.

RUTA BAGA.—John Smedberg of Prattsville raised eleven hundred and sixty bushels on one acre; second premium crop 820 bushels; third premium crop 724 bushels.

CARROTS.—Wm. Risley, of Chatauque, 1059 bushels to the acre.

MANGEL WURTZEL.—C. B. Meek, 1101 bushels per acre.

BUTTER.—General Vail of Troy. Mr. Vail's cows are Durham; six of them, kept on grass feed, produced in thirty days 262 lbs. 9 oz. of butter, averaging for each cow 43 lbs. 12 oz. The milk of one cow was kept separately for thirty days, and yielded in that time 52 lbs. 9 oz. of butter.

LARGE CROP.—The Tompkins county Agricultural Society, report the following large crop. John Seely of Ithica, 59½ bushels wheat per acre; 148½ bushels of barley from 2 7-8 acres.

BOILING POTATOES.—Not one housekeeper out of ten knows how to boil potatoes properly. Here is an Irish method, one of the best we know. Clean wash the potatoes and leave the skin on; then bring the water to a boil and throw them in. As soon as boiled soft enough for a fork to be easily thrust through them, dash some cold water into the pot, let the potatoes remain two minutes, and then pour off the water. This done, half remove the pot lid, and let the potatoes remain over a slow fire till the steam is evaporated; then peel and set them on the table in an *open* dish. Potatoes of a good kind thus cooked, will always be sweet, dry, and mealy. A covered dish is bad for potatoes, as it keeps the steam in, and makes them soft and watery.

PICKLING EGGS.—In England, at the season of the year when the stock of eggs is plentiful, they cause some four or six dozen to be boiled in a capacious saucepan, until they become quite hard. They then, after removing the shells, lay them carefully in large mouthed jars, and pour over them scalding vinegar, well seasoned with whole pepper, allspice, ginger, and a few cloves or gar-

lic. Then, when cold, hang them down close. In a month they will be fit for use. Where eggs are plentiful, the above pickle is by no means expensive, and as an acetic accompaniment to cold meat, it cannot be outrivalled for piquancy and gout by the generality of pickles made in this country.

The above is doubtless a very good method of pickling eggs; but for our part, we prefer putting them down in salt, after dipping them in whitewash.

AMOUNT OF PORK PACKED THIS SEASON IN THE WEST.—The Cincinnati Chronicle estimates the number of swine packed this season in Ohio, Indiana, Illinois, Kentucky, and Tennessee, at 592,870, against 933,600 last year; showing a deficit of 340,730. The weight per head is supposed to be at least 12 to 15 per cent. less than last season.

PIG NURSED BY A COW.—A cow on the farm of W. Raven, Esq., at Gingley-on the Hill, may be seen two or three times a day laid on her side in the fold-yard, sucking a litter of pigs, nine in number, which have recently been taken from the sow. Several attempts have been made to drive her off, but she always returns, and has once or twice ran at the parties who have attempted to interfere with her in her maternal cares of the young litter.

SAGO PALMIST.—Of all the palm trees which are natives of Asia, the sago palmist is one of the most useful and interesting; a liquor runs from the incisions made in its trunk, which readily ferments, and is both salutary and agreeable for drinking. The marrow, or pith of the tree, after undergoing a slight preparation, is the substance known by the name of sago in Europe, and so eminently useful in the list of nutricious food for the sick. The trunk and large leaves of the sago palmist are highly useful in the construction of buildings; the first furnishes planks for the carpenter, and the second a covering for the roof. From the leaves are also made cords, matting, and other articles of domestic use.

WEIGHT OF SOIL OF AN ACRE.—The soil of an acre of land, at the usual depth to which it is plowed, weighs on an average about 700 tons.

STEEPING SEEDS.—In March last, some pink seeds were steeped in a solution of sulphate of ammonia, another parcel in nitrate of soda, and a third in a mixture of lime, salt, and hen's dung. A quantity of pink seed was sown at the same time, in the usual way. The seeds in the sulphate of ammonia grew very quickly, and are now the largest plants of this year's sowing. Those in nitrate did no good, three only surviving; and those in the mixture failed altogether.

RAISING TURKEYS.—Herctofore I have had so much difficulty in raising turkeys as to be almost discouraged, but of late have been very successful, in consequence of pursuing the following mode recommended to me by a lady, who said that she had no trouble with them.

When first hatched give no feed for twenty four hours, then give a little *curd* made from buttermilk, increasing the quantity as they grow older, at the same time feeding the hen with whole corn. They should be secured from the wet, and by no means have Indian meal; but with the curd they may have in moderate quantities, wheat bread soaked in buttermilk or crumbs of the same. I believe Indian meal is fatal to to the greater part of the young turkeys which die in the attempt to raise them. To allow them to wander too much is attended usually with considerable loss. I have found it a very good plan to make an enclosure of boards six feet square or so, and twelve to eighteen inches high, and set this in a grass field during fine weather, in which to confine the young turkeys. This is removed occasionally from place to place; the chickens thus get all the fresh green food they may need, besides an abundance of insects.

KEEP THE OIL OF MILK IN YOUR CHEESE.—Stephen Yates, who keeps a dairy in Herkimer county, State of New York, says, that he discovered that when milk was scalded in the usual way of making cheese, an oil would rise on the top and run off into the whey. This oil, every one knows, adds very much to the rich flavor of the cheese and should be retained. He directed that the milk should not be scalded, and he found that he not only retained the oil which is aromatic, but also the cream which otherwise would pass into the whey. He kept his cheese in the press until the linen wrapper was no longer moist, and then rubbed often with hog's lard. We have offered the above statement by way of hint to our dairy people. We hope they will inquire into the facts and see if the above statement be correct. If it should be, it is certainly an object to attend to the suggestion of saving the oil and not let it run off into the whey-tub and thence into the pig's trough. The whey is the pig's perquisite, but it is not worth while to *oil* it for him at the expense of the cheese.—*Maine Farmer.*

The estates of many of the Spanish noblemen are very large; from 100 to 800 yoke of working cattle are frequently found upon them, besides a large number of mules. One farmer sowed last year 10,000 bushels of seed wheat and 3,000 of barley, and during the civil war he was taxed at one contribution alone, $16,000!

CULTIVATION OF ONIONS BY THE TARTARS.—Instead of raising them from seeds, in which they do not succeed, or which appears to them too long a process, they dry and smoke in a chimney those which they wish to propagate, and in spring, when the time to plant them is arrived, they cut them diagonally into quarters, but so as not to separate the pieces entirely one from another. They set these onions in rows, when thus prepared, in good soil, well dug, but not freshly manured, at about ten inches from each other, and two inches deep. These onions increase extraordinarily, and grow large and strong.

GREAT DURABILITY OF OAK TIMBER.—Beams of the oak have recently been taken from houses in England, respectively 527, 808, and 900 years old. The beams are said to have been cut in the winter, and the bark always kept on them, which added to their preservation. Timber cut in the months of May and June, and the bark stripped off, has been found to be most durable in the climate of America.

A GOOD ROTATION FOR GARDEN CROPS.—Celery gives a good preparation for carrots, turneps, parsneps, onions, and early cauliflowers, or for peas, with potatoes and winter greens, or brocoli between the rows. Autumn sown onions may be succeeded by spinach, lettuce, &c., and early cauliflower by autumn onions. Spring-sown onions will be advantageously succeeded by cabbages in beds, with scarlet runners between; and if the cabbages stand all summer and next winter, the ground will come in, in the spring, along with brocoli ground, from celery, potatoes, and peas, the early potatoes being planted in the trenches, and the peas sown on the ridges.

OLD HORSES.—The Spirit of the Times says, that there is a very spirited and handsome roadster in this city that is forty-three years old; that Mr. Wm. Wincoop of Catskill, has three horses with which he does the work upon his farm, whose respective ages are thirty-six, thirty eight, and forty, making in the aggregate one hundred and fourteen years; and that our best trotters have performed their greatest achievements after attaining the age of fourteen.

GREAT CROPS OF WHEAT.—Mr. Peters states in the new Genesee Farmer, that Mr. Lewis, of Alexander, raised one hundred and forty-bushels of wheat, weighing sixty pounds to the bushel, on two acres and seventy rods of ground, which would be at the rate of sixty bushels and three pecks to the acre. Gen. Harmon, in the New York State Agricultural society Transactions, 1812, says, in 1803, Mr. Sheffer, of Wheatland, harvested forty acres of wheat which produced sixty-two and a half bushels per acre.